

Notice of Allowability

Application No.

10/789,260

Examiner

Michael A. Lyons

Applicant(s)

PEPPER ET AL.

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 24 April 2006.
2. ☒ The allowed claim(s) is/are 1-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Gregory J. Tolley, Jr.
Supervisory Patent Examiner

DETAILED ACTION

Allowable Subject Matter

Claims 1-24 are allowed in view of the prior art.

The following is an examiner's statement of reasons for allowance:

As for claim 1, the prior art of record, taken either alone or in combination, fails to disclose or render obvious an optical system for sensing net global motion components in a scattering medium, the system comprising a wavefront-reversal device that collects light propagated through the scattering medium and returns a conjugated light beam, and an optical detector that detects and processes the conjugated beam, in combination with the rest of the limitations of the above claim.

As for claim 10, the prior art of record, taken either alone or in combination, fails to disclose or render obvious an optical system for suppressing noise components produced by a scattering medium, the system comprising a phase-conjugate mirror that collects light propagated through the scattering medium and returns a conjugated light beam, and a coherent optical detector that detects and processes the conjugated beam, in combination with the rest of the limitations of the above claim.

As for claim 14, the prior art of record, taken either alone or in combination, fails to disclose or render obvious a remote sensor, the system comprising a wavefront-reversal device that collects light propagated through the scattering medium and returns a conjugated light beam, and an optical detector that detects and processes the conjugated beam, in combination with the rest of the limitations of the above claim.

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As for claim 23, the prior art of record, taken either alone or in combination, fails to disclose or render obvious a method for sensing net global motion components in an ensemble of dynamically moving scattering sites, the method comprising passing an output beam through a scattering medium, forming a return beam with a wavefront from the output beam, wavefront matching the wavefront of the return beam with the wavefront of the output beam, passing the return beam back through the medium, and extracting the desired motion component from the return beam, in combination with the rest of the limitations of the above claims.

As for claim 24, the prior art of record, taken either alone or in combination, fails to disclose or render obvious a method for suppressing noise components in an ensemble of dynamically moving scattering sites, the method comprising passing an output beam through a scattering medium, collecting, with a wavefront-reversal device, the passed through light in order to return a conjugated beam, detecting the conjugated beam reflected from the scattering medium, and extracting the desired motion component from the return beam, in combination with the rest of the limitations of the above claims.

In particular, please see the applicants' arguments of record dated April 24, 2006 in response to the previous Office Action.

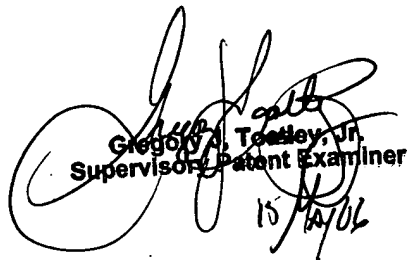
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Lyons whose telephone number is 571-272-2420. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MAL
May 4, 2006


Gregory J. Toatley, Jr.
Supervisory Patent Examiner
15/11/06